

JOURNAL OF ANATOMY

QL
801
J7

CONDUCTED ON BEHALF OF THE ANATOMICAL SOCIETY
OF GREAT BRITAIN AND IRELAND BY

R. E. M. BOWDEN

W. J. HAMILTON

G. CAUSEY

G. J. ROMANES

R. E. COUPLAND

R. J. SCOTHORNE

J. T. EAYRS

R. J. HARRISON (EDITOR)

VOLUME 100

JANUARY 1966—OCTOBER 1966

CAMBRIDGE
AT THE UNIVERSITY PRESS
1966

PUBLISHED BY
THE SYNDICS OF THE CAMBRIDGE UNIVERSITY PRESS

Bentley House, 200 Euston Road, London, N.W. 1
American Branch: 32 East 57th Street, New York, N.Y. 10022

Printed in Great Britain at the University Printing House, Cambridge

Contents

PART 1—JANUARY 1966.

	PAGE
The Journal of Anatomy, 1867–1966, Volume 100. By E. W. WALLS . . .	1
The retinal representation upon the optic tectum and isthmo-optic nucleus in the pigeon. By J. I. MCGILL, T. P. S. POWELL and W. M. COWAN . . .	5
The organization of the projection of the centrifugal fibres to the retina in the pigeon. By J. I. MCGILL, T. P. S. POWELL and W. M. COWAN . . .	35
The occipitotectal pathway of the rat. By R. D. LUND	51
Acetylcholinesterase in the developing forebrain. By K. KRNJEVIĆ and ANN SILVER	63
Experiments on the pattern of the blood vessels in the central nervous system of <i>Xenopus laevis</i> . By R. T. SIMS	91
Distribution of extracellular material in central white matter. By S. K. MALHOTRA and A. van HARREVELD	99
The formation of new motor endplates in mammalian skeletal muscle. By D. G. GWYN and J. T. AITKEN	111
The fine structure of autonomic neuromuscular contacts in arterioles of sheep renal cortex. By F. O. SIMPSON and C. E. DEVINE	127
Induced limbal migration: a technique for studying melanocytes. By PAUL HENKIND and BARRIE JAY	139
Rates and duration of hair growth in the albino rat. By G. C. PRIESTLEY	147
Electron microscopy of guinea-pig epidermis stained by the osmium-iodide technique. By A. S. BREATHNACH and D. GOODWIN	159
Biochemical, histochemical and ultrastructural changes in the mouse seminal vesicle after castration. By P. G. TONER and A. H. BAILLIE	173
The arterial supply to the adrenal gland of the sheep. By F. A. HARRISON and I. R. McDONALD	189
REVIEWS	203

PART 2—APRIL 1966

The fine structure of chondrocytes. By A. J. PALFREY and D. V. DAVIES . . .	213
The mechanism of the differential staining reaction for adrenaline- and noradrenaline-storing granules in tissues fixed in glutaraldehyde. By R. E. COUPLAND and D. HOPWOOD	227

	PAGE
An electron microscopic study of developing gall bladder epithelium in the rabbit. By A. F. HAYWARD	245
The intrinsic innervation of the gall bladder in <i>Macaca rhesus</i> and <i>Cavia porcellus</i> . By SHEILAH D. SUTHERLAND	261
The submaxillary gland of the golden hamster and its post-natal development. By N. S. DEVI and F. JACOBY	269
The cellular response to nerve injury. I. The cellular outgrowth from the distal stump of transected nerve. By P. K. THOMAS	287
The effects of denervation on skeletal muscle blood vessels (rat cremaster). By R. T. GRANT	305
Observations on some cortical areas of the Lesser Bush Baby (<i>Galago senegalensis senegalensis</i>). By R. KANAGASUNTHERAM, CHAN HENG LEONG and Z. Y. MAHRAN	317
The form of the mouse blastocyst. By A. D. DICKSON	335
Phagocytic activity of the rat placenta. By ADNAN H. AL-ABBASS and RICHARD L. SCHULTZ	349
Influence of thyroid function on the teratogenic activity of trypan blue in the rat. By GEORGE A. CHRISTIE	361
Pubertal growth in the Leydig cells and accessory reproductive organs of the rat. By E. J. CLEGG	369
The development of the primary portal plexus in the median eminence of rabbit. By H. J. CAMPBELL	381
A presomite human embryo showing a yolk-sac duct. By B. V. LEWIS and R. G. HARRISON	389
Human thoracic diameters at rest and during activity. By P. R. DAVIS and J. D. G. TROUP	397
Fascial canal for the small saphenous vein. By ARUNKANT C. SHAH and H. C. SRIVASTAVA	411
REVIEWS	415

PART 3—JULY 1966

The morphology of laminae A and A_1 of the dorsal nucleus of the lateral geniculate body of the cat. By ALAN PETERS and SANFORD L. PALAY .	451
Further electron microscope studies of human foetal peripheral nerves. By H. J. GAMBLE	487
Electron microscopy of the oocyte and granulosa cells in the developing ovarian follicles of the golden hamster (<i>Mesocricetus auratus</i>). By BRENDA SHAW WEAKLEY	503

Contents

V

	PAGE
Electron microscopic observations on the cytotrophoblast contribution to the syncytium in the human placenta. By J. D. BOYD and W. J. HAMILTON	535
Electron microscopy of pigment cells in tail skin of <i>Lacerta vivipara</i> . By A. S. BREATHNACH and SUSAN V. POYNTZ	549
On the visual-cell pattern of a homalopsine snake. By GARTH UNDERWOOD	571
The relationship of nucleolar size to protein synthesis in cells of the hair cortex of rats. By R. T. SIMS	577
Experimental formation of lymphatic nodules in the thymus of guinea-pigs after injection of histamine. By M. KOTANI, A. MANABE, K. SEIKI and I. HORII	585
The distribution of nerves, monoamine oxidase and cholinesterase in the skin of cattle. By D. McEWAN JENKINSON, B. P. SENGUPTA and P. S. BLACKBURN	593
Histochemical studies of chondrocyte function in the cartilage of the mandibular condyle of the rat. By J. S. GREENSPAN and H. J. J. BLACKWOOD	615
Observations on the reaction of tubular bone to venous stasis. By A. B. E. ABDALLA and R. G. HARRISON	627
The peripheral course of the inferior dental nerve. By MARJORIE WEDGWOOD	639
The terminal distribution of the hepatic artery with special reference to arterio-portal anastomosis. By S. K. MITRA	651
A study by means of vascular casts of small vessels related to the mammalian portal vein. By I. DEL RIO LOZANO and W. H. H. ANDREWS	665
BOOK REVIEWS	675
PROCEEDINGS, FEBRUARY 1966	683

PART 4—OCTOBER 1966

The effects of X-irradiation on the development of the cerebral cortex. By M. BERRY and J. T. EAYRS	707
Simultaneous demonstration of normal boutons and degenerating nerve fibres and their terminals in the spinal cord. By P. STERLING and H. G. J. M. KUYPERS	723
The innervation of muscle spindles in the Australian opossum, <i>Trichosurus vulpecula</i> , with special reference to the motor nerve endings. By E. G. JONES	733

A quantitative and cytological study of oogenesis in the rhesus monkey. By T. G. BAKER	761
Development of the sheep conceptus during the first fourteen days. By L. E. A. ROWSON and R. M. MOOR	777
The fine structure of the sex vesicle and sex chromosome association in spermatocytes of mouse, golden hamster and field vole. By E. H. R. FORD and D. H. M. WOOLLAM	787
Hydroxysteroid dehydrogenase development in mouse adrenal and gonads. By D. McK. HART, A. H. BAILLIE, K. C. CALMAN and M. M. FERGUSON	801
Epithelial lymphocytes in the small intestine of the mouse. By D. DARLING- TON and A. W. ROGERS	813
Histological changes in the foetal thyroid of the dromedary (<i>Camelus dromedarius</i>). By AHMED S. EL-SHEIKH, A. A. RASHEED and SAFAA O. AMIN	831
Studies of the microcirculation using transparent tissue observation chambers inserted in the hamster cheek pouch. By I. A. SEWELL	839
Studies of Haversian systems in man and some animals. By JENIFER JOWSEY	857
The phylogeny of the cruropedal extensor musculature, with special reference to the primates. By O. J. LEWIS	865
The arteries of the human kidney. By H. FINE and E. N. KEEN	881
Intercellular channels in the canine and porcine thyroid gland. By B. A. YOUNG	895
The embryology of the rectal gland of the spiny dogfish <i>Squalus acanthias</i> , L. By D. K. O. CHAN and J. G. PHILLIPS	899
A note on the relationship of the human maxillary nerve to the cavernous sinus and to an emissary sinus passing through the foramen ovale. By W. R. HENDERSON	905
IN MEMORIAM	909
BOOK REVIEWS	913
BOOKS RECEIVED	919
PROCEEDINGS, (GREAT BRITAIN AND IRELAND) APRIL 1966	921
PROCEEDINGS, (AUSTRALIA AND NEW ZEALAND) JANUARY 1966	935
INDEX AND SUPPLEMENTARY INDEX	